

Application Serial No. 10/537,144
Reply to final office action of October 30, 2009

JAN 12 2010 PATENT
Docket: CU-4236

Amendments to the Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (currently amended) A communication device that connects with a network through a wireless local area network (WLAN) access point to receive data, the communication device comprising:
 - a GPS receiving module for receiving position information of the connection device from a GPS satellite;
 - a WLAN module for connecting with the WLAN access point;
 - a storage unit for storing position information of the WLAN access point; and
 - a controller for selectively operating the WLAN module based on the position information of the communication device output from the GPS receiving module and the position information of the WLAN access point stored in the storage unit,wherein the controller receives new WLAN access point position information after receiving a "Position Information Renewal" message from a position information server according to checking result of version information on the WLAN access point position information, and renews the stored position information, and

where in the controller receives a "New Position Information Verification" message from the position information server of the "Position Information Renewal" message or a "No New Information" message,
receiving a new position information of the WLAN access point from the

Application Serial No. 10/537,144
Reply to final office action of October 30, 2009

PATENT
Docket: CU-4236

position information server in the case where the communication device receives the "Position Information Renewal" message, and performing processes to renew the position information; and

the position information server checking version information of WLAN access point position information that the communication device has from the "New Position Information Verification" message,

transmitting the "Position Information Renewal" message to the communication device in the case where a first version of the WLAN access point position information that the communication device has is older than a second version of present WLAN access point position information;

transmitting the "No New Information" message to the communication device if the first version is identical to the second version; and

transmitting the new WLAN access point position information corresponding to the second version to the communication device after the "Position Information Renewal" message is sent.

2. (previously presented) The communication device of claim 1, wherein the position information of the WLAN access point includes a position of the WLAN access point and the service radius of the WLAN access point.

3. (original) The communication device of claim 2, wherein the controller operates the WLAN module when the communication device is within the service radius of the WLAN access point.

Application Serial No. 10/537,144
Reply to final office action of October 30, 2009

PATENT
Docket: CU-4236

4. (original) The communication device of claim 2, wherein the WLAN module is operated by control of the controller to detect a beacon signal output by the WLAN access point.

5. (previously presented) The communication device of claim 1, wherein the communication device is connected to the position information server, which is connected to the Network through the WLAN access point, and receives WLAN access point position information through the position information server to renew the position information stored in the storage unit.

6. (currently amended) A method for connecting to a wireless local area network (WLAN) access point, which is connected to a network, for a communication device that includes a WLAN module and a GPS receiving module, the method comprising:

a) continuously checking a present position of the communication device through the GPS receiving module;

b) determining an operating point of the WLAN module based on stored position information of the WLAN access point and the position information of the communication device; and

c) driving the WLAN module to detect a beacon signal periodically transmitted by the WLAN access point, and connecting to the WLAN access point with the detected beacon signal; and

d) receiving new position information of the WLAN access point from a position

Application Serial No. 10/537,144
Reply to final office action of October 30, 2009

PATENT
Docket: CU-4236

information server that is connected to the network following connection to the WLAN access point, and renewing the stored position information,

wherein the communication device receives the new WLAN access point position information after receiving a "Position Information Renewal" message according to checking result of version information on the WLAN access point position information by the position information server,

transmitting the "New Position Information Verification" message to the position information server through the WLAN module;

receiving from the position information server a reply to the above message, that is, the "Position Information Renewal" message or a "No New Information" message; and

receiving the new position information of the WLAN access point from the position information server in the case where the communication device receives the "Position Information Renewal" message, and performing processes to renew the position information,

checking version information of WLAN access point position information that the communication device has from the "New Position Information Verification" message;

transmitting the "Position Information Renewal" message to the communication device in the case where a first version of the WLAN access point position information that the communication device has is older than a second version of present WLAN access point position information;

transmitting the "No New Information" message to the communication

Application Serial No. 10/537,144
Reply to final office action of October 30, 2009

PATENT
Docket: CU-4236

device if the first version is identical to the second version; and
transmitting the new WLAN access point position information
corresponding to the second version to the communication device after the
"Position Information Renewal" message is sent.

7. – 9. (cancelled)

10. (previously presented) The method of claim 6, wherein the WLAN access point position information includes access point position information and access point service radius information.